

ABSTRACT

A plurality of fuel electrodes are disposed on one surface of a common solid polyelectrolyte membrane, while a plurality of oxidizer electrodes are disposed on the other surface of the same to create a plurality of unit cells, which share the solid polyelectrolyte membrane. These unit cells are electrically connected through connection electrode. A groove is formed in a region of the solid polyelectrolyte membrane between adjacent unit cells. This groove limits the migration of hydrogen ions to adjacent unit cells to prevent reduction in voltage. The resulting solid polymer fuel cell provided in this way, which is simple in structure and of a small size and a small thickness, can provide high power.